# Claims

[c1]    A communication system that connects a first network and a second network for communication thereof, comprising:

a first interconnecting device connected to a first communication device of said first network;

a second interconnecting device, connected to said first interconnecting device and a second communication device of said second network, operable to control whether or not communication between said first and second communication devices is allowed; and

an external recording device connecting to said first interconnecting device and operable to store authentication information of a user of said first communication device, said authentication information being used for authentication of the user by said second interconnecting device, wherein said first interconnecting device comprises:

an acquiring unit operable to acquire said authentication information of the user of said first communication device from said external recording device; and

a transmit unit operable to transmit said authentication information acquired by said acquiring unit to said second interconnecting device.

[c2]    A communication system as claimed in claim 1, wherein said second interconnecting device includes:

a receive unit operable to receive said authentication information from said first interconnecting device;

an authentication unit connecting to said receive unit and operable to authenticate said authentication information received by said receive unit; and

a setting unit connecting to said authentication unit and operable to set said second interconnecting device to allow the communication between said first and second communication devices in a case where the authentication by said authentication unit was successful.

[c3]    A communication system as claimed in claim 2, wherein said acquiring unit of said first interconnecting device is further operable to acquire bandwidth information from said external recording device;

said transmit unit of said first interconnecting device is further operable to

transmit said bandwidth information acquired by said acquiring unit to said second interconnecting device;

said receive unit of said second interconnecting device is further operable to receive said bandwidth information from said first interconnecting device; and said setting unit of said second interconnecting device is further operable to set a bandwidth of the communication between said first and second communication devices based on said bandwidth information received by said receive unit.

[c4]     An interconnecting device for connecting a first network and a second network to enable communication between a first communication device of said first network and a second communication device of said second network, the interconnecting device comprising:

an acquiring unit operable to acquire from a recording device, which is outside said interconnecting device, authentication information of a user of said first communication device for authentication of the user, by an authentication apparatus, for controlling whether or not communication between said first and second communication devices is allowed; and

a transmit unit connecting to said acquiring unit and operable to transmit said authentication information received by said acquiring unit to said authentication apparatus.

[c5]     An interconnecting device as claimed in claim 4, wherein said acquiring unit comprises a reading unit operable to read said authentication information from a non-volatile memory that comprises said recording device storing said authentication information.

[c6]     An interconnecting device as claimed in claim 4, wherein said acquiring unit includes a receive unit operable to perform wireless communication with a wireless communication device that comprises said recording device storing said authentication information, and to receive said authentication information from said wireless communication device by the wireless communication.

[c7]     An interconnecting device as claimed in claim 4, wherein said acquiring unit further acquires identification information of said authentication apparatus from

said recording device, and said transmit unit transmits said authentication information acquired by said acquiring unit to said authentication apparatus identified by said identification information acquired by said acquiring unit.

[c8]     An interconnecting device as claimed in claim 4, further comprising a setting unit connecting to said acquiring unit and operable to set a bandwidth of the communication between said first and second communication devices, wherein said acquiring unit further acquires bandwidth information from said recording device, and

said setting unit sets said bandwidth of the communication between said first and second communication devices based on said bandwidth information acquired by said acquiring unit.

[c9]     An interconnecting device as claimed in claim 4, further comprising a decryption unit connecting to said acquiring unit and operable to decrypt encrypted authentication information in a case where said acquiring unit acquired said authentication information after encryption.

[c10]     An interconnecting device as claimed in claim 4, further comprising a processing unit connecting to said transmit unit and operable to determine whether or not said authentication apparatus is allowed to authenticate the user, wherein

said transmit unit transmits said authentication information acquired by said acquiring unit to said authentication apparatus in a case where said processing unit determined that said authentication apparatus is allowed to authenticate the user.

[c11]     An interconnecting device as claimed in claim 10, wherein said processing unit determines that said authentication apparatus is allowed to authenticate the user in a case where said first communication device has been turned on.

[c12]     An interconnecting device as claimed in claim 10, wherein said processing unit determines that said authentication apparatus is allowed to authenticate the user in a case where said interconnecting device has been turned on.

[c13]     A program, stored in a computer-readable medium, for use in an

interconnecting device that connects a first network and a second network to allow communication between a first communication device of said first network and a second communication device of said second network, the program comprising:

an acquiring unit operable to acquire from a recording device, that is outside said interconnecting device, authentication information of a user of said first communication device, used for authentication of the user by an authentication apparatus for controlling whether or not communication between said first and second communication devices is allowed; and

a transmit unit operable to transmit said authentication information to said authentication apparatus.

[c14]     A program as claimed in claim 13, further comprising a setting unit operable to set a bandwidth of the communication between said first and second communication devices, wherein

said acquiring unit further operates to acquire bandwidth information from said recording device, and

said setting unit operates to set the bandwidth of the communication between said first and second communication devices based on said bandwidth information.

[c15]     A program as claimed in claim 13, further comprising a decryption unit operable to decrypt encrypted authentication information when said authentication information is encrypted.